

ABERDEEN AREA INDIAN HEALTH SERVICE
FISCAL YEAR 1998 ANNUAL ENERGY REPORT

November 2, 1998

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

* of pages ► 10

To <u>Adam Scully</u>	From <u>Marty LaRoche</u>
Dept./Agency <u>DFEE</u>	Phone # <u>Aberdeen Area</u>
Fax #	Fax #

NSN 7540-01-317-7368

5099-101

GENERAL SERVICES ADMINISTRATION

Email copy
being sent
to you by
Rod Vgff

ABERDEEN AREA INDIAN HEALTH SERVICE
FISCAL YEAR 1998 ANNUAL ENERGY REPORT

Table of Contents

INTRODUCTION	1
A. ANNUAL ENERGY MANAGEMENT DATA REPORT	1
I. Energy Consumption and Cost Data	1
II. Energy Conservation Program Summary	1
B. ENERGY CONSUMPTION REDUCTION GOALS	1
C. ENERGY SAVINGS PERFORMANCE CONTRACTS	1
D. ENERGY EFFICIENCY AND WATER CONSERVATION PROJECT FUNDING ...	2
E. ENERGY AND WATER SURVEYS AND AUDITS	2
I. Prioritization Survey	2
II. Comprehensive Facility Audit	2
III. Leased Facilities	3
F. IMPLEMENTATION OF ENERGY EFFICIENCY AND WATER CONSERVATION PROJECTS	3
G. SOLAR AND OTHER RENEWABLE ENERGY	3
H. MINIMIZATION OF PETROLEUM-BASED FUEL USE	3
I. ENERGY EFFICIENT OPERATION AND MAINTENANCE PROCEDURES	3
J. ENERGY EFFICIENCY IN NEW SPACE	3
K. PERFORMANCE EVALUATIONS	3
L. INCENTIVE AWARDS	3
M. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS	4
N. ENERGY MANAGEMENT TRAINING	4
O. ENVIRONMENTAL BENEFITS OF ENERGY MANAGEMENT ACTIVITIES	4

Appendix A	5
Appendix B	6
Appendix C	7

ABERDEEN AREA INDIAN HEALTH SERVICE FISCAL YEAR 1998 ANNUAL ENERGY REPORT

INTRODUCTION

The annual energy report was prepared in accordance with the DHHS FY 1995 Energy Reporting Format, dated September 18, 1995 and the 1998 Energy data format. The report meets the reporting requirements of the National Energy Conservation Policy Act (NECPA) as amended by the Energy Policy Act of 1992 (EPACT) and Executive Orders 12759 and 12902.

A. ANNUAL ENERGY MANAGEMENT DATA REPORT

I. Energy Consumption and Cost Data (Appendix A) The Aberdeen Area has 28 facilities — 8 small hospitals, 7 health centers, 11 health stations, one inpatient youth treatment center, and one leased health center where the owner pays all utility costs. The 27 IHS-owned facilities occupy 1,046,077 gross square feet (gsf) with a total energy cost of \$1,244,000 in fiscal year 1998. Total energy consumption was 120,745 BTU/gsf which is a 27% decrease from the 1985 base year consumption of 165,724 BTU/gsf.

II. Energy Conservation Program Summary (Appendix B) The Aberdeen Area completed 2 energy related projects in fiscal year 1998. A \$600,000 mechanical system upgrade at the Rosebud Hospital and a \$50,000 energy management system installation at the Sioux San Hospital in Rapid City. We are waiting for a full years use of these new systems to evaluate the energy and cost savings they will provide.

In fiscal year 1998, Engineering Services-Seattle (ES-S) issued a Request for Proposal to Johnson Controls, Inc. An energy performance savings contract is likely to be awarded in fiscal year 1999!

B. ENERGY CONSUMPTION REDUCTION GOALS

The Aberdeen Area continues to reduce energy consumption. Fiscal year 1998 energy consumption was 27% less than 1985 energy consumption. The Area has concentrated on the award of an energy performance savings contract, which should be awarded in early fiscal year 1999.

C. ENERGY SAVINGS PERFORMANCE CONTRACTS

The Department of Energy (DOE) — Denver Regional Office, has awarded Energy Savings Performance Contracts (ESPC) to a number of prequalified contractors. The Aberdeen Area has a Memorandum of Understanding (MOU) with DOE which will allow ES-S to award an ESPC to a prequalified contractor, Johnson Controls, Inc.

Johnson Controls is presently preparing a proposal for an ESPC for all IHS facilities in the Aberdeen Area. The proposal will be completed in January 1999 and ES-S will evaluate the proposal and award the ESPC if the proposal is acceptable. ES-S is anticipating a 15 year contract period.

The contractor will determine the scope of work in their proposal. The Area anticipates the work will include lighting retrofit projects, installation of energy management systems, and possibly some mechanical system upgrades.

One concern in awarding an ESPC is the contractors expectations for the operation and maintenance of contractor-installed equipment. The Area will work with ES-S to clarify this issue prior to contract award. Another concern is payment to the contractor under a long term contract. The Area will work closely with ES-S and the contractor on this issue prior to contract award.

D. ENERGY EFFICIENCY AND WATER CONSERVATION PROJECT FUNDING

Energy projects have just been completed at the Sioux San Hospital in Rapid City (energy management system) and at the Rosebud Hospital (mechanical upgrades). These two projects along with a few small projects were completed specifically to reduce energy consumption at these facilities.

To date, water conservation projects have not been considered for funding.

E. ENERGY AND WATER SURVEYS AND AUDITS

I. Prioritization Survey

The Aberdeen Area has 28 healthcare facilities – 8 hospitals, 7 health centers, 11 health stations, 1 youth treatment center, and 1 leased health center. To date, comprehensive energy audits have been completed at all 8 hospitals and 4 health centers. The Aberdeen Area began completing comprehensive energy audits in fiscal year 1995. The goal was to complete audits of the main facility at each of the hospitals and health centers.

II. Comprehensive Facility Audit

Of the Areas 28 facilities, comprehensive energy audits were completed at 12 of the facilities. The total area surveyed to date 54% of the gross floor area. The remaining 46% will be surveyed in future fiscal years in accordance with the ten year audit plan (Appendix C).

III. Leased Facilities

The Ft. Totten Health Center is the only leased facility in the Aberdeen Area. The health center is housed in a tribal building in Ft. Totten, ND. The Tribe pays all utility costs as part of the lease.

F. IMPLEMENTATION OF ENERGY EFFICIENCY AND WATER CONSERVATION PROJECTS

The Aberdeen Area has completed energy audits at 12 of 28 locations prior to fiscal year 1998. These audits have been used to provide data for the Area-wide energy savings performance contract which is expected to be awarded in fiscal year 1999. Energy and cost savings data will not be available until the contract is awarded.

G. SOLAR AND OTHER RENEWABLE ENERGY

No information to report.

H. MINIMIZATION OF PETROLEUM-BASED FUEL USE

No information to report.

I. ENERGY EFFICIENT OPERATION AND MAINTENANCE PROCEDURES

The Area has installed a number of energy management systems at Area facilities to help reduce energy consumption. In previous years, local Facility Managers have been encouraged to implement no-cost and low-cost energy savings measures. The Area does not have energy data available to measure the reduction in energy consumption from these efforts.

J. ENERGY EFFICIENCY IN NEW SPACE

The most recent new space completed in the Aberdeen Area is the youth regional treatment center at Wakpala, SD. Energy consumption at this facility was 72,022 BTU/gsf in FY'98 compared with 120,745 BTU/gsf Area-wide in FY'98. The Area will continue to consider energy consumption in the design of new space.

K. PERFORMANCE EVALUATIONS

No information to report.

L. INCENTIVE AWARDS

No information to report.

M. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS

The Aberdeen Area is aware of the requirement to procure energy efficient products. The Area does not have specific information available on product purchases made in 1998 because these products were purchased as part of larger construction projects. The Area will plan on providing information on product purchases in FY'99.

N. ENERGY MANAGEMENT TRAINING

No information to report.

O. ENVIRONMENTAL BENEFITS OF ENERGY MANAGEMENT ACTIVITIES

No information to report.

Appel A

ENERGY CONSUMPTION AND COST DATA

OPDIV	Aberdeen Area IHS	REPORTED YEAR	FY 1998
PREPARED BY	Najam Ikramullah	TITLE	Mechanical Engineer
PHONE NUMBER	(605) 226-7461	DATE SUBMITTED	Nov. 2, 1998
Buildings/Facilities			
Energy Type	Reporting Units	Annual Consumption	Annual Cost (thous. \$)
Electricity	KWH	17,248,013.0	\$920
Fuel Oil	Thous. Gal.	275.0	\$185
Natural Gas	Thous. Cu. Ft.	20,337.0	\$58
LPG/Propane	Thous. Gal.	134.9	\$81
Coal	S. Ton	0.0	\$0
Purch. Steam	MMBtu	0.0	\$0
Other	MMBtu	0.0	\$0
		TOTALS	\$1,244
Gross Square Feet (thousands)			1,046
Btu/Gross Square Foot			125,068
\$/Gross Square Foot			\$1.19
Tactical Vehicles/Equipment			
NOT APPLICABLE			
Energy Type	Reporting Units	Annual Consumption	Annual Cost (thous. \$)
Auto Gas	Thous. Gal.		
Diesel	Thous. Gal.		
LPG/Propane	Thous. Gal.		
Aviation Gas	Thous. Gal.		
Jet Fuel	Thous. Gal.		
Navy Special	Thous. Gal.		
Other	BBtu		
		TOTALS	\$0
		Site-Delivered Total MMBtu	58,850.2
		Primary (Source) Total MMBtu	200,077.0
		Carbon Emissions (Metric Tons)	2,952
		Site-Delivered Total MMBtu	38,142.5
		Primary (Source) Total MMBtu	38,142.5
		Carbon Emissions (Metric Tons)	761
		Site-Delivered Total MMBtu	20,967.4
		Primary (Source) Total MMBtu	20,967.4
		Carbon Emissions (Metric Tons)	303
		Site-Delivered Total MMBtu	12,883.0
		Primary (Source) Total MMBtu	12,883.0
		Carbon Emissions (Metric Tons)	221
		Site-Delivered Total MMBtu	0.0
		Primary (Source) Total MMBtu	0.0
		Carbon Emissions (Metric Tons)	0
		Site-Delivered Total MMBtu	0.0
		Primary (Source) Total MMBtu	0.0
		Carbon Emissions (Metric Tons)	0
		Site-Delivered Total MMBtu	0.0
		Primary (Source) Total MMBtu	0.0
		Carbon Emissions (Metric Tons)	0
		Site-Delivered Total MMBtu	130,843.1
		Primary (Source) Total MMBtu	272,069.8
		Carbon Emissions (Metric Tons)	4,237

Appendix B
ENERGY CONSERVATION PROGRAM SUMMARY

OPDIV: Aberdeen Area IHS
PREPARED BY: Najam Ikramullah
PHONE NUMBER: (605) 226-7461

REPORTED YEAR: FY 1998
TITLE: Mechanical Engineer
DATE SUBMITTED: 11/2/98

DIRECT AGENCY EXPENDITURES

Direct expenditures on facility energy efficiency improvements:

	Current Fiscal Year	Next Fiscal Year
Annual Expenditures (Thous. \$)	<u>650</u>	<u>Pending</u>

Annual savings anticipated from expenditures MMBTU (Thous. \$)

ENERGY SAVINGS PERFORMANCE CONTRACTS

Number of ESP contracts awarded in Fiscal Year 0

	Contractor Share	Government Share
Estimated life-cycle cost savings (Thous. \$)	<u> 0 </u>	<u> 0 </u>

Annual savings anticipated from ESP contracts 0 MMBTU 0 (Thous. \$)

Total annual payments made to all ESP contractors (Thous. \$) 0

UTILITY INCENTIVES

Incentives received 0 (Thous. \$)

Funds spent in order to receive incentives 0 (Thous. \$)

Annual savings anticipated from DSM activities 0 MMBTU 0 (Thous. \$)

TRAINING

Current year expenditures for energy management training 0 (Thous. \$)

Number of personnel trained 0

Appendix C
INDIAN HEALTH SERVICE TEN YEAR AUDIT PLAN

FACILITY	# BLDGS	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04
Aberdeen	100		34%	3%	17%	0%	0%	10%	10%	10%	10%	6%